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(54) **METHOD OF CHARACTERIZING, DISTINGUISHING, AND MEASURING A CONTACT REGION**

(57) Methods of determining thermal properties of a contact region are provided. The method comprises receiving temperature data of a sensor; determining a temperature distribution of heat penetration from a sensor to at least one material; applying a correction to the temperature distribution; iteratively analyzing the corrected temperature distribution; and outputting thermal properties of a contact region, the contact region being a region

between the sensor and the at least one material. The method may further comprise determining thermal properties of the at least one material; and determining corrected thermal properties of the material using the thermal properties of the contact region. The method may further comprise automatically determining an appropriate time window for measuring properties of the at least one material to minimize effects of the contact region.

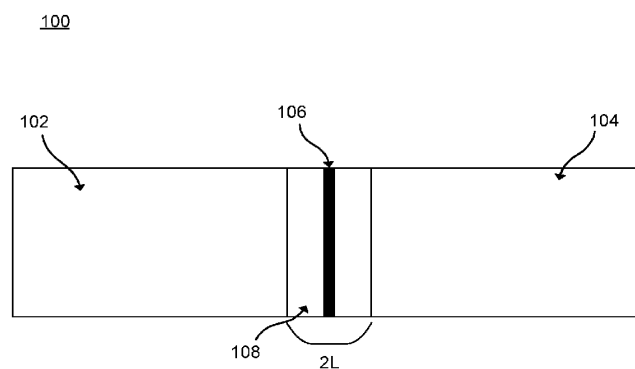


Figure 1

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EUROPEAN SEARCH REPORT

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EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2011/065877 A1 (HOT DISK AB [SE]; ROSEN ARNE [SE] ET AL.) 3 June 2011 (2011-06-03) * claims; figures * * pages 8-9 *	1-6	INV. G01N25/18
X	DE 10 2016 214137 A1 (DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT E V [DE]) 21 December 2017 (2017-12-21) * paragraphs [0001], [0002], [0005], [0007], [0009] - [0012], [0022]; claims *	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
			G01N
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 8 October 2021	Examiner Kraus, Leonie
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-6

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-6

**determine thermal properties of a region between a sensor
and a material by means of an iterative analysis**

2. claims: 7-10

**determine thermal properties of a region between two
materials by means of heating a sensor situated within this
region**

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

08-10-2021

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2011065877 A1	03-06-2011	NONE	

DE 102016214137 A1	21-12-2017	DE 102016214137 A1	21-12-2017
		EP 3472602 A1	24-04-2019
		WO 2017220482 A1	28-12-2017
